

Moore's Creek Phase I Drainage Improvements 1936 Yorktown Road

Randy Firth of Total Home Improvements purchased the property at 1936 Yorktown Road on November 11, 2004 for \$100,000. Staff met with him on December 16 to discuss the impacts of the Moore's Creek Drainage Project on his newly acquired property. Mr. Firth expressed an interest in selling the property to York County, provided it could be accomplished in a reasonable time frame. If the County bought the property, the house, garage, and outbuilding would be demolished, and the driveway culverts would be eliminated to improve the drainage and eliminate the house most at risk in the Phase I area.

By purchasing the property, some of the Phase I construction could be eliminated, and thus the costs associated with those items. Below are listed some of the items that would be eliminated:

Installation the grinder pump, force main:	20,000
Purchase of temp construction and perm easement drainage:	4,500
Installation of new culvert:	3,600
Installation of low flow diversion at culvert:	1,250
Installation of gabion basket retaining wall:	16,000
New headwalls:	15,000
Relocate clothesline:	50
Restoration of driveway:	200
Sub-total	60,600
10% Contingency	6,060
TOTAL	\$66,660

Drainage Benefits

Every time stormwater flows through a culvert, there is a constriction, and the water surface elevation rises. By removing the set of culverts on the property, the water surface elevation will be reduced.

The elimination of the future gabion basket retaining wall and existing concrete bag retaining wall on the west side of the stream will reduce the water surface elevation by increasing the cross-sectional area of the stream. Additional over excavation of floodplain on the remainder of the property will further decrease the water surface elevation during storms.

This house is the most likely to flood and be damaged by floodwaters. Even if stormwater does not enter the house, failure of the wall due to floodwaters will eventually occur and result in damage to the house. At some point, the County will be asked to replace the concrete bag wall. Due to the proximity of the house to the stream, a gabion basket wall cannot be used. A concrete retaining wall will be necessary. To replace 50-feet of concrete bag wall with a concrete retaining wall approximately six-feet high will cost approximately \$30,000.

Conclusion

Staff recommends pursuing the purchase of 1936 Yorktown Road to improve the drainage and reduce the risk of failure of the structures on the property provided the property could be purchased at a reasonable price.